

इंटरनेट

मानक

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IS 10026-3-1 (1999): Insulating Varnishes Containing Solvents, Part 3: Specifications for Individual Materials, Section 1: Requirements for Cold Curing Finishing Varnis [ETD 2: Solid Electrical Insulating Materials and Insulation Systems]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

(Reaffirmed 2004)

विलायक युक्त विद्युत रोधी वार्निश

भाग 3 अलग-अलग सामग्री के लिए विशिष्टियाँ

अनुभाग 1 अतप्त उपचार को फिनिश देने की वार्निश के लिए अपेक्षाएं

(पहला पुनरीक्षण)

Indian Standard

INSULATING VARNISHES CONTAINING SOLVENTS

PART 3 SPECIFICATIONS FOR INDIVIDUAL MATERIALS

Section 1 Requirements for Cold Curing Finishing Varnishes

(*First Revision*)

ICS 87.060.30

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

FOREWORD

This Indian Standard (Part 3/Sec 1) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Solid Electrical Insulating Materials Sectional Committee had been approved by the Electrotechnical Division Council.

This standard (Part 3/Sec 1) is one of the series of Indian Standards which deals with insulating varnishes containing solvents.

The series comprises the following three parts:

- Part 1 Definitions and general requirements
- Part 2 Methods of tests
- Part 3 Specifications for individual materials

This standard (Part 3/Sec 1) specifies the requirements for finishing varnishes at ambient temperature.

In preparing this standard assistance has been derived from IEC Publication 464-3-1 (1986) 'Specification for insulating varnishes containing solvent: Part 3 Specification for individual materials; Sheet 1 Requirements for cold curing finishing varnishes' issued by the International Electrotechnical Commission (IEC).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

INSULATING VARNISHES CONTAINING SOLVENTS

PART 3 SPECIFICATIONS FOR INDIVIDUAL MATERIALS

Section 1 Requirements for Cold Curing Finishing Varnishes

(First Revision)

1 SCOPE

This standard (Part 3/ Sec 1) covers the requirements for finishing varnishes at ambient temperature.

2 REFERENCES

The Indian Standards listed below are necessary adjuncts to this standard:

IS No.	Title
197 : 1696	Methods of sampling and test for varnishes and lacquers (<i>first revision</i>)
9000 (Part 10) : 1979	Basic environmental testing procedures for electronic and electrical items: Part 10 Mould growth test
10026	Insulating varnishes containing solvents
(Part 1) : 1981	Definitions and general requirements
(Part 2) : 1982	Methods of tests

3 REQUIREMENTS

All material in a consignment shall comply with the requirements of IS 10026 (Part 1) for colour, conditions of supply and shelf-life and shall, in addition, comply with the requirements of Table 1 of this Part. The flash point, density, dilution ability, resistance to mould growth, resistance to tracking (Method B) and temperature index, for which no values are specified in this part shall be measured by the methods given in IS 10026 (Part 2) and for resistance to mould growth IS 9000 (Part 10).

4 SAMPLING

4.1 The samples shall be submitted packed in three different containers, each containing not less than one litre of the material.

4.2 Representative samples of the material shall be drawn as prescribed in IS 197.

Table 1 Requirements
(Clause 3)

Property	Test Method, Ref to IS 10026 (Part 2), Clause No.	Requirements	Remarks
Viscosity	5	Nominal value ± 15 percent	Nominal value shall be stated
Non-volatile matter	6	Nominal value ± 2 percent	Nominal value shall be stated
Drying time in thin film	7	Non-tacky	Film thickness of 0.04 ± 0.01 mm. Drying at a temperature of $27 \pm 2^\circ\text{C}$ and at a relative humidity of (50 ± 5) percent with a drying time of 16 h, unless otherwise agreed between purchaser and supplier
Flash-point	8	Not less than agreed between purchaser and supplier	
Flexibility (Mandrel test)	16.1	No cracking detectable by normal vision	Film thickness of 0.03 to 0.05 mm. Conditions for drying see above: Drying time in thin films
Effect of water immersion on volume resistivity	19	Before immersion not less than $10^{12} \Omega \text{ cm}$. After immersion not less than $10^8 \Omega \text{ cm}$	After an immersion time of 7 days
Effect of water immersion on electric strength	20	After an immersion time of 7 days in water the central value shall be not less than 40 V/ μm	
Resistance to tracking (Method A)	21	The varnish shall not decrease the resistance to tracking	

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Amendments Issued Since Publication

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